

FIG.1

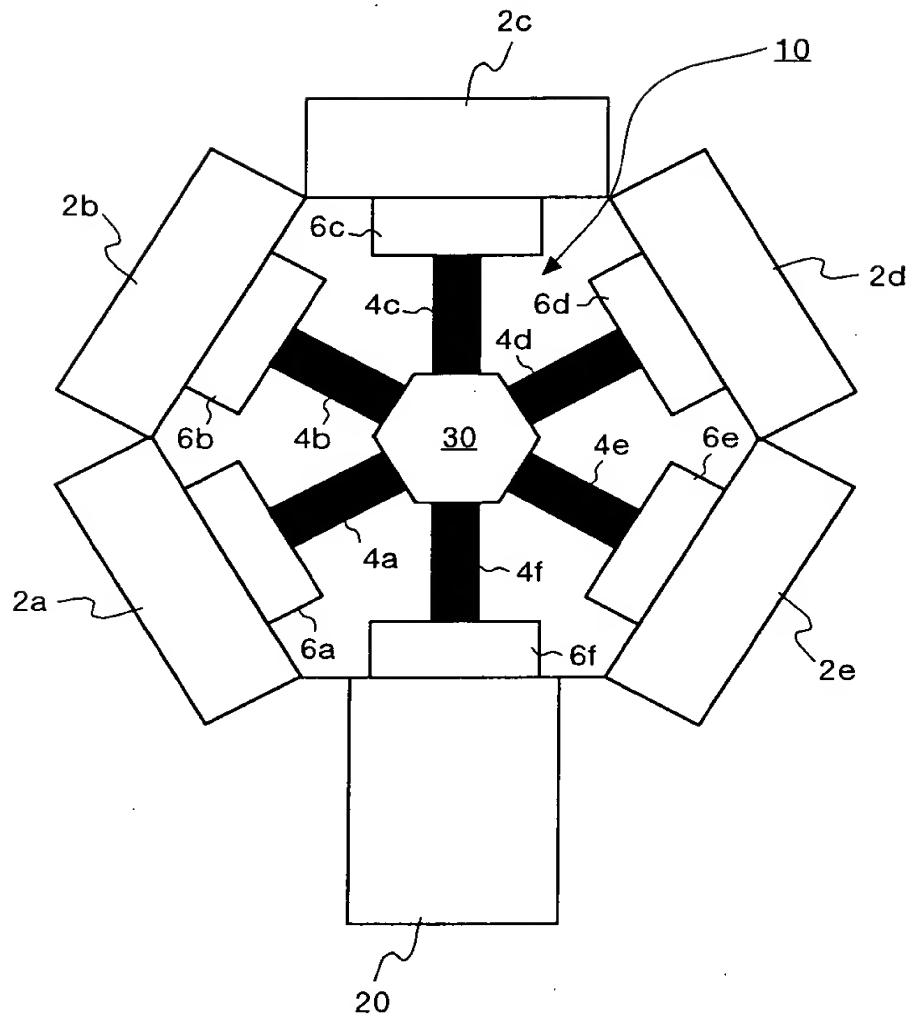


FIG.2

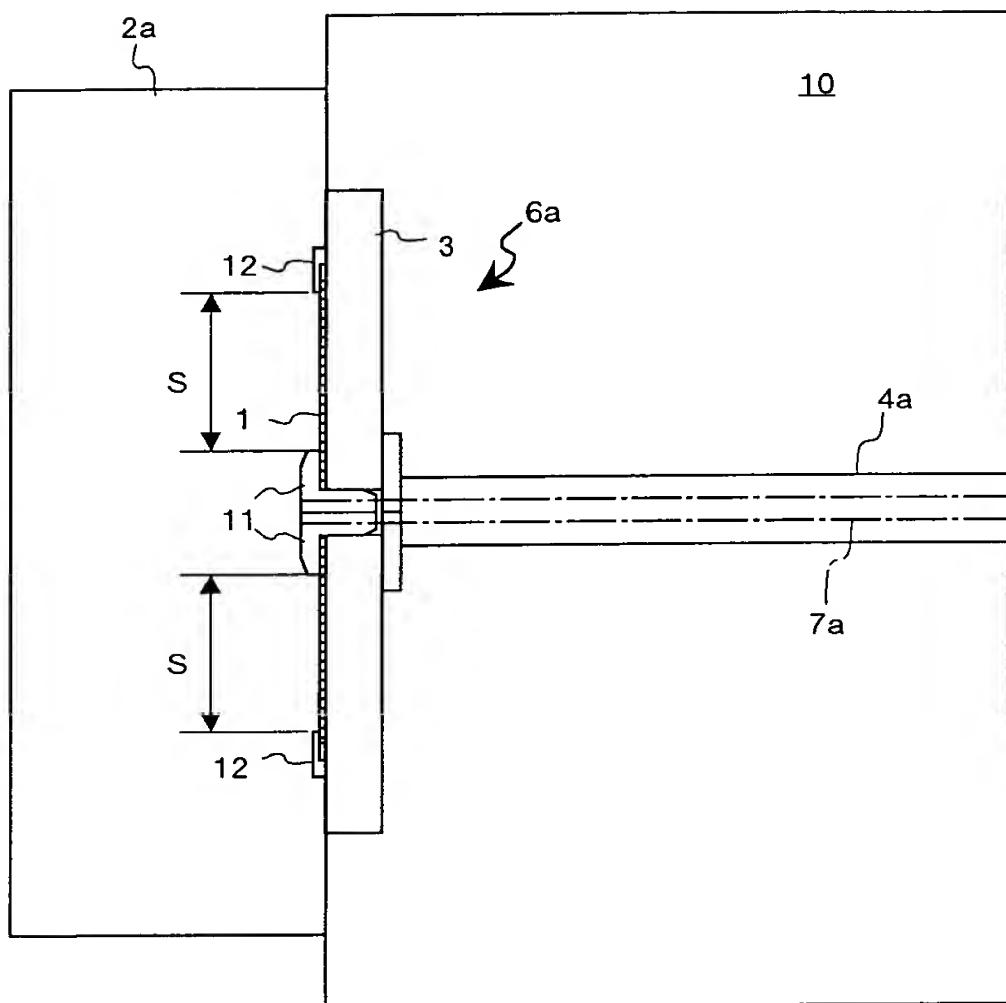


FIG.3

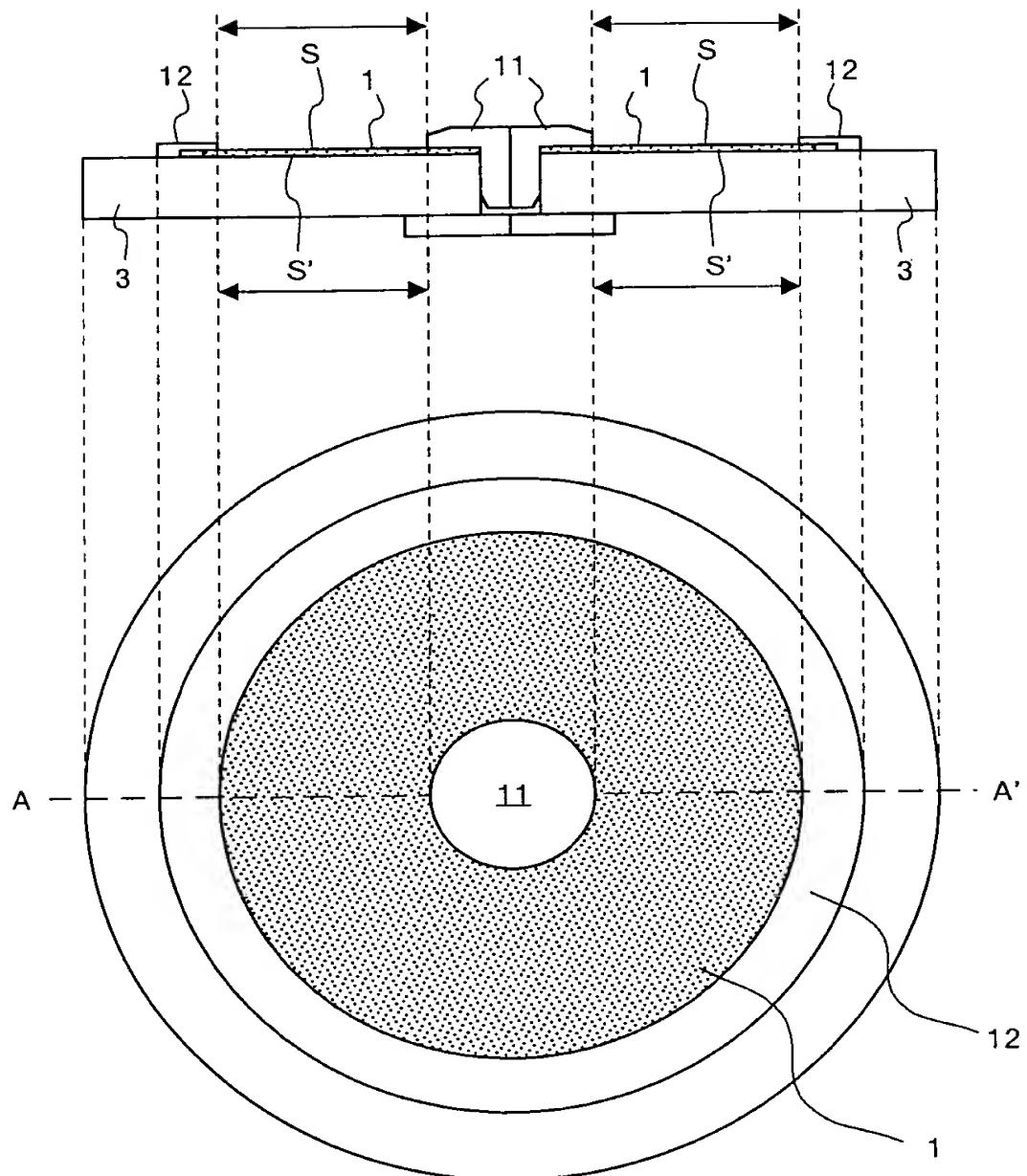


FIG.4

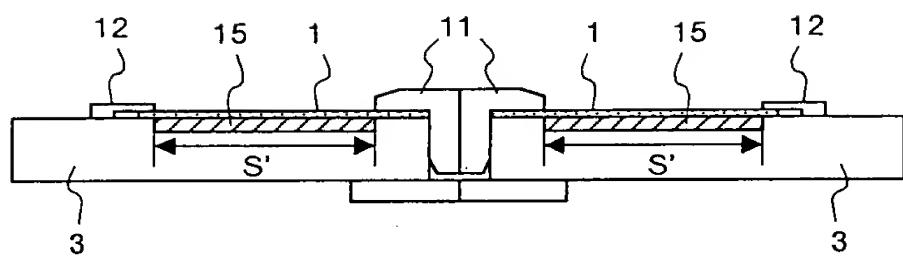


FIG.5

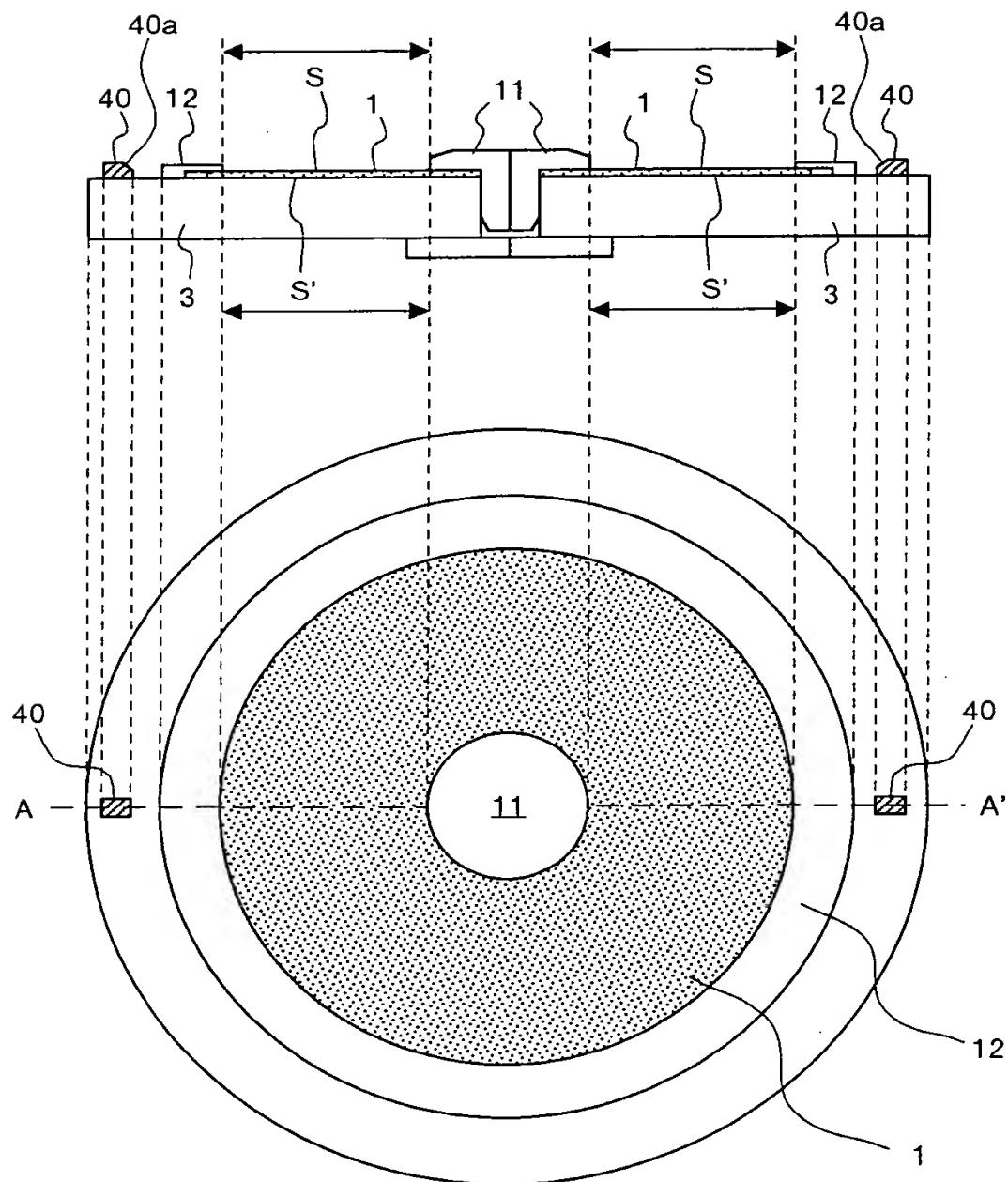


FIG.6

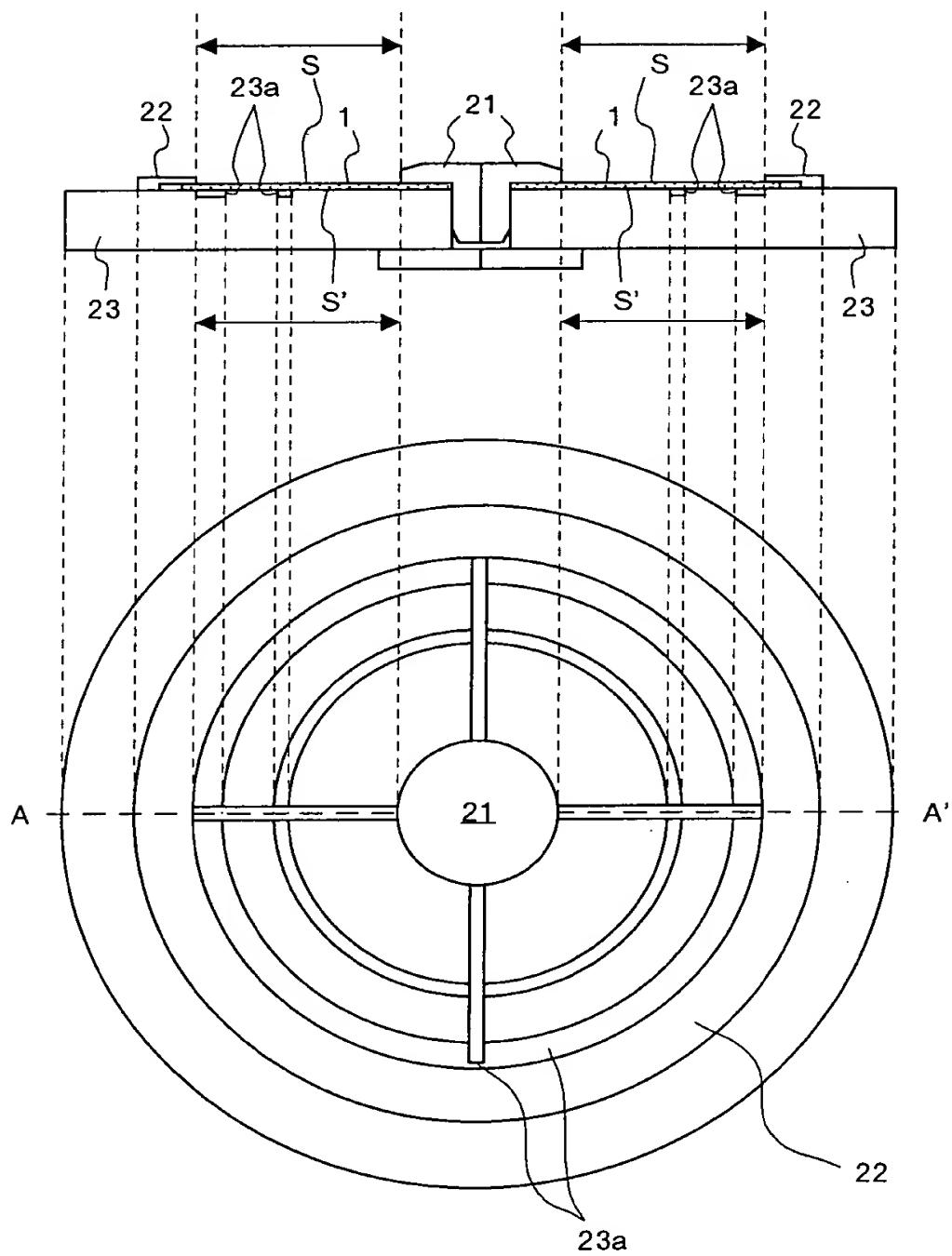


FIG.7

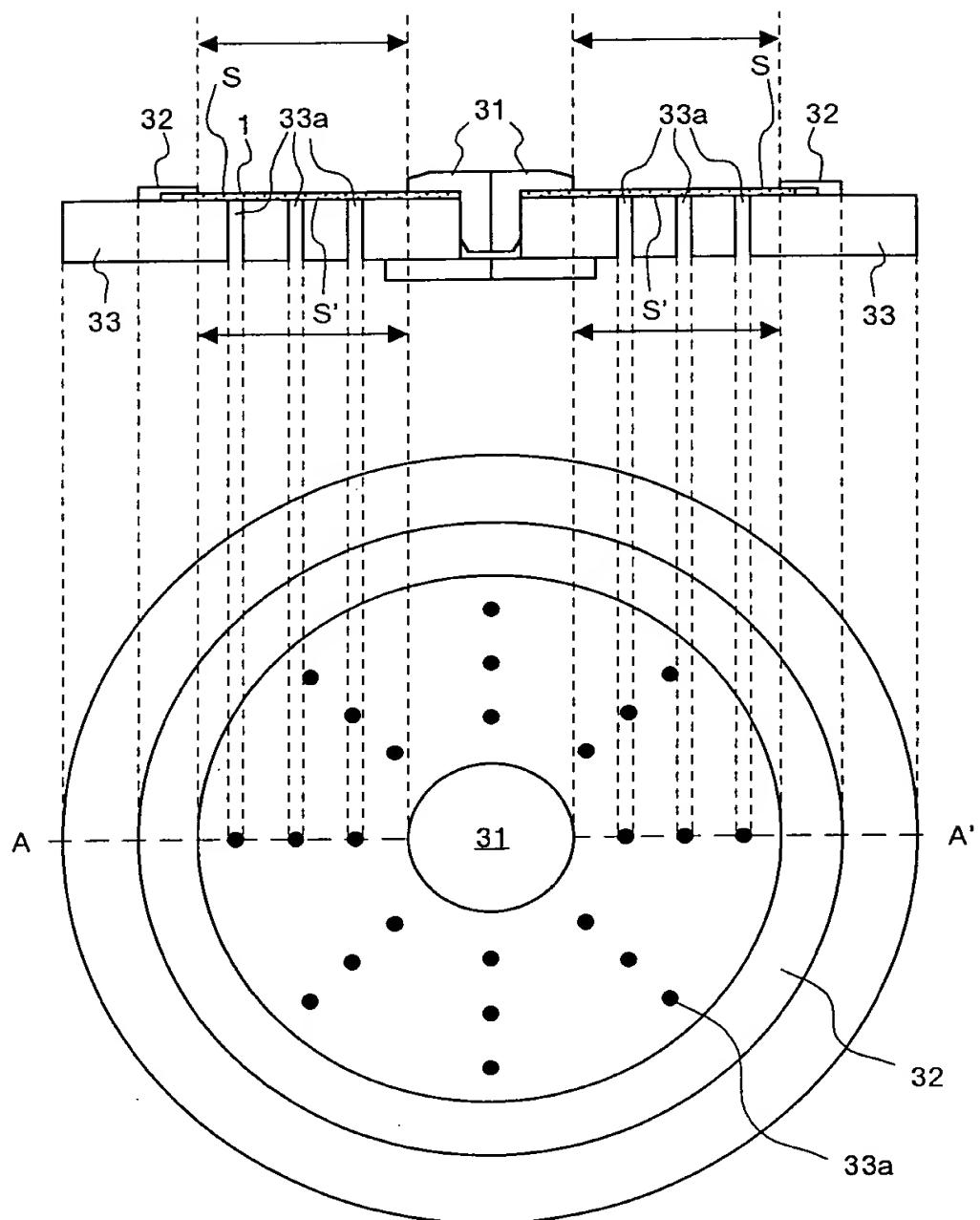


FIG.8

CONVENTIONAL TECHNOLOGY	THICKNESS OF SUBSTRATE		
	0.3mm	0.6mm	0.7mm
MEASUREMENT IMPOSSIBLE	-550	-540	-100
EMBODIMENT①	-350	-300	-290
EMBODIMENT②	-340	-290	-280
EMBODIMENT③ -1	-340	-290	-280
EMBODIMENT③ -2	-350	-300	-290

MAXIMUM WARPING AMOUNT
OF SUBSTRATE [μm]

FIG.9

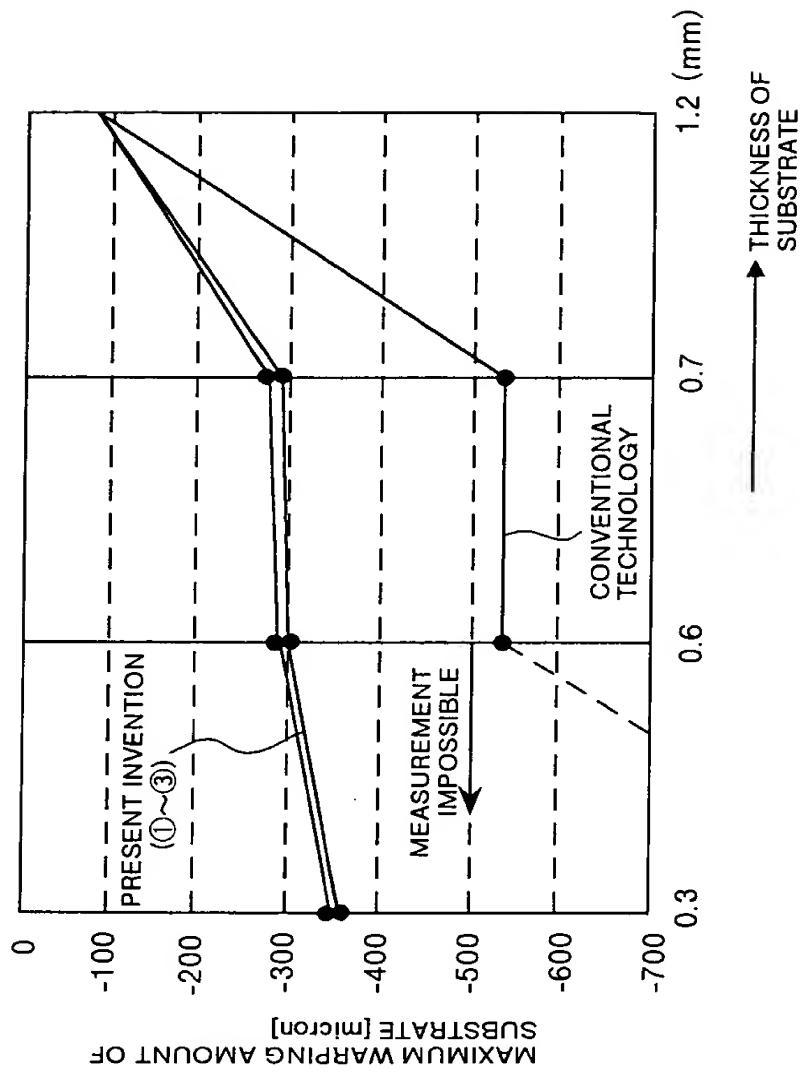


FIG.10

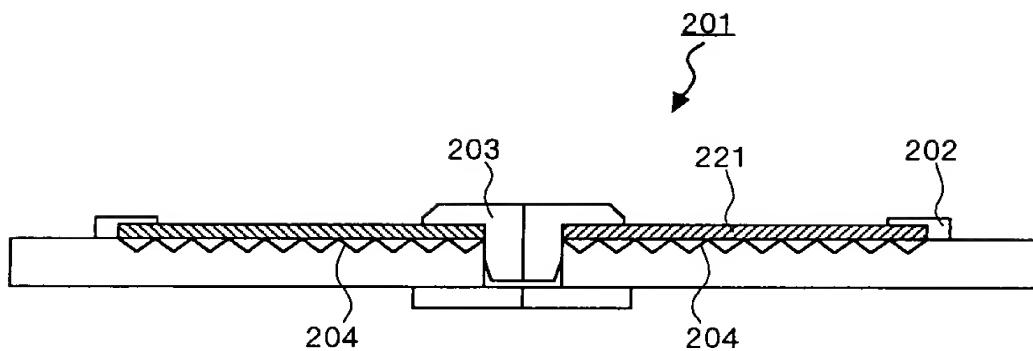


FIG.11

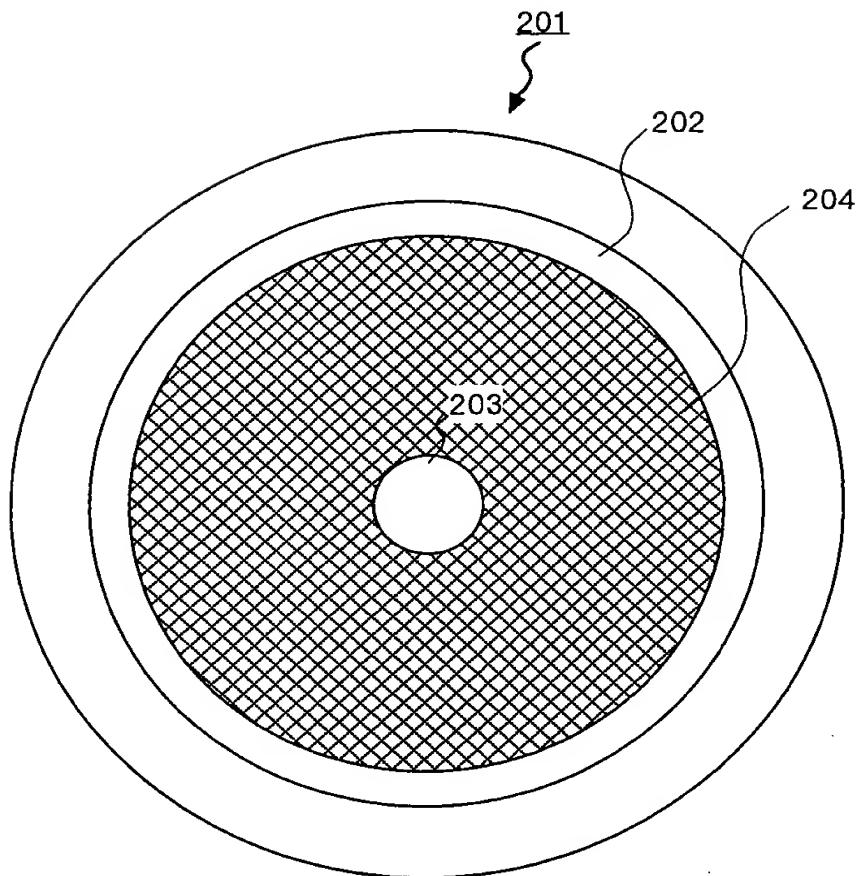


FIG.12

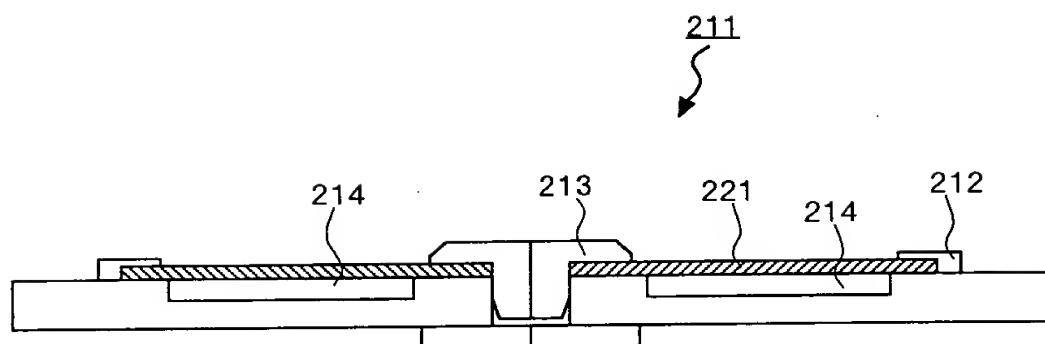


FIG.13

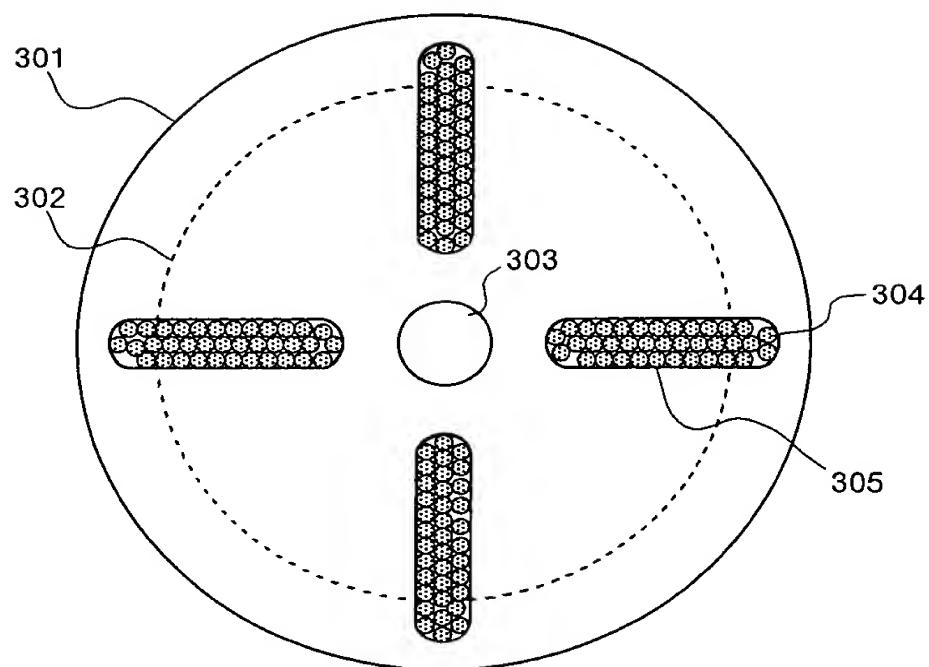


FIG.14

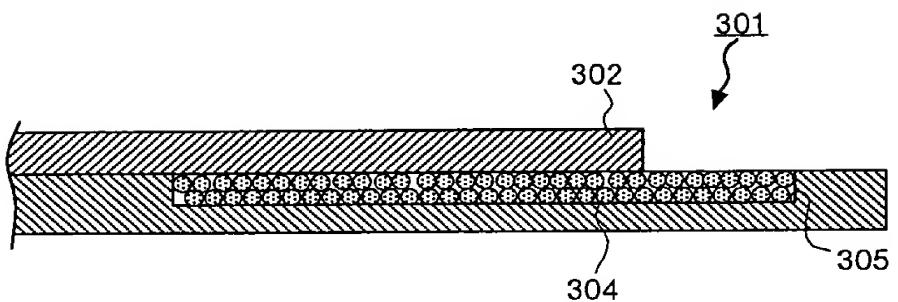


FIG.15

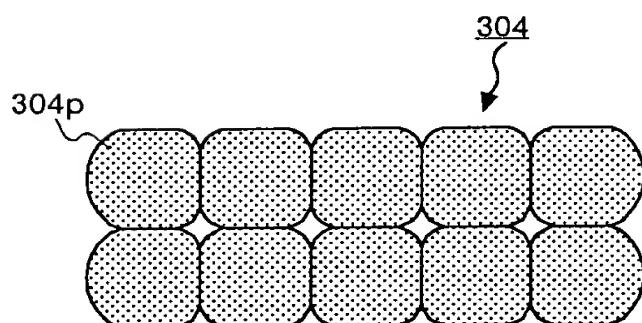


FIG.16

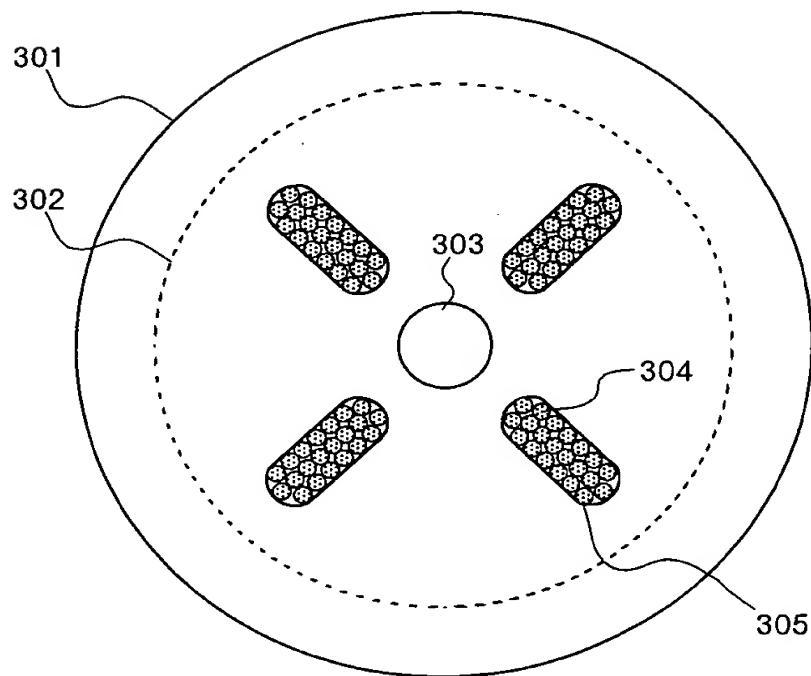


FIG.17

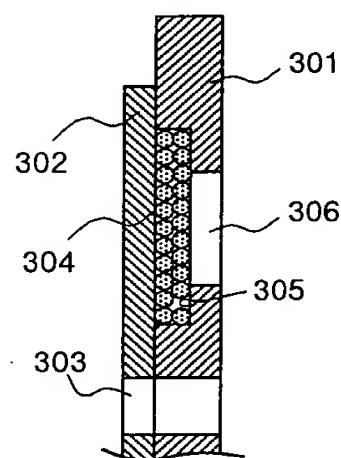


FIG.18

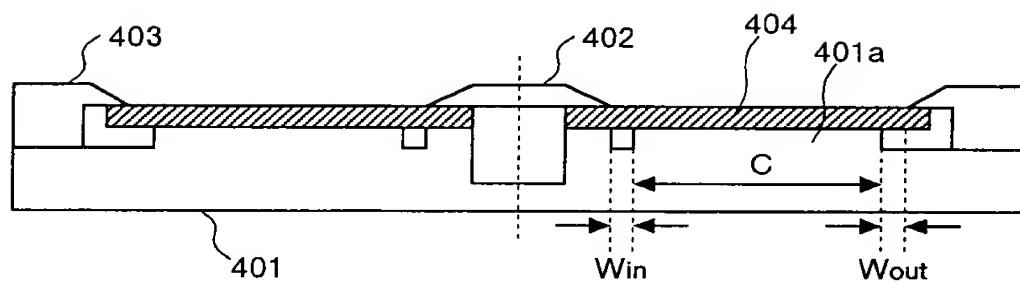


FIG.19

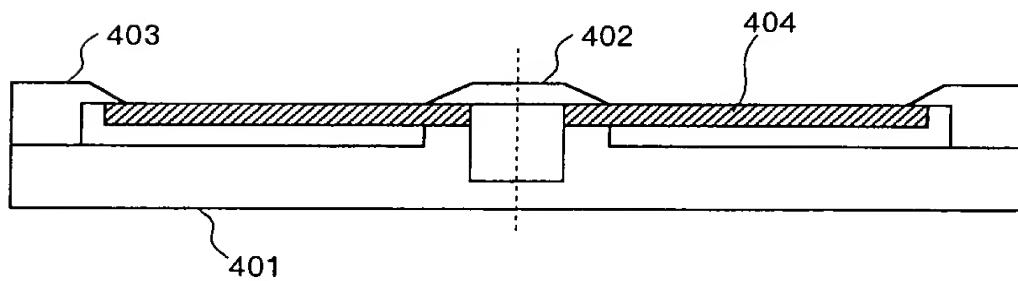


FIG.20

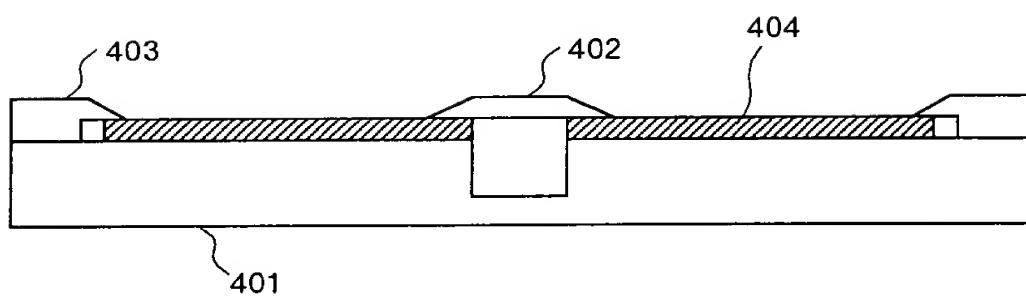


FIG.21

SUBSTRATE OR FILM-FORMED LAYER	MATERIAL	THICKNESS
REFLECTION LAYER	Al ALLOY	160nm
UPPER BASE PROTECTION LAYER	ZnS·SiO ₂	30nm
RECORDING LAYER	Ag-In-Sb-Te	20nm
LOWER BASE PROTECTION LAYER	ZnS·SiO ₂	180nm
SUBSTRATE	POLYCARBONATE	0.6mm

FIG.22

TYPES OF SUBSTRATE HOLDER	WARPING RATE OF SUBSTRATE (μm)
SUBSTRATE HOLDER SHOWN IN FIG.18	100
SUBSTRATE HOLDER SHOWN IN FIG.19	>400
SUBSTRATE HOLDER SHOWN IN FIG.20	100

FIG.23

NO.	WIDTH W_{in} FROM AN INNER MASK TO A SUBSTRATE HOLDER EDGE (mm)	WIDTH W_{out} FROM AN INNER MASK TO A SUBSTRATE HOLDER EDGE (mm)	WARPING AMOUNT OF THE SUBSTRATE (μ m)	A NUMBER OF UNSUCCESSFULLY LOADED SUBSTRATES AMONG 100 SHEETS CONTINUOUSLY FORMED
1	4	1	100	0
2	4	0	100	20
3	4	0.5	100	0
4	4	3	100	0
5	4	5	100	0
6	4	6	150	0
7	4	7	200	0
8	1	1	100	20
9	2	1	100	0
10	5	1	100	0
11	7	1	100	0
12	10	1	100	0
13	11	1	120	0
14	12	1	150	0

FIG.24

NO.	TAPER ANGLE θ IN SUBSTRATE HOLDER EDGE (deg.)	WARPING AMOUNT OF THE SUBSTRATE (μ m)	PRESENCE OF A DAMAGE ON A SUBSTRATE CAUSED BY SUBSTRATE HOLDER EDGE SECTION
15	0	100	YES
16	0.5	100	YES
17	1.0	100	NO
18	1.5	100	NO
19	2.0	100	NO
20	2.5	150	NO
21	3.0	200	NO

FIG.25

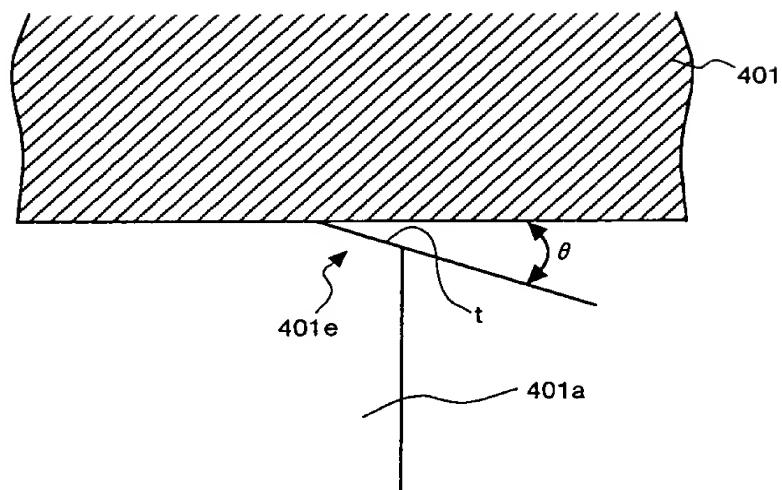


FIG.26

NO.	WIDTH H OF SILICON RUBBER IN SUBSTRATE HOLDER EDGE (mm)	WARPING RATE OF A SUBSTRATE (μm)	PRESENCE OF A DAMAGE ON A SUBSTRATE CAUSED BY SUBSTRATE HOLDER EDGE SECTION
22	0	100	YES
23	0.1	100	NO
24	0.3	100	NO
25	0.5	100	NO
26	0.6	120	NO
27	0.7	150	NO

FIG.27

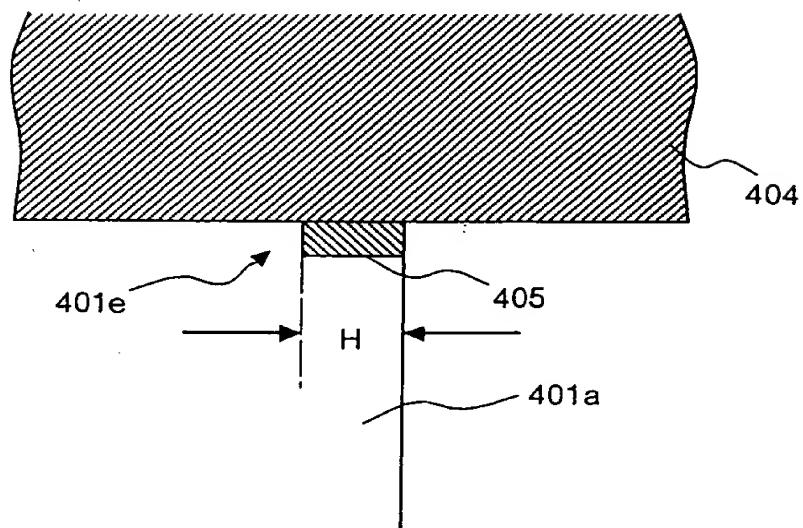


FIG.28

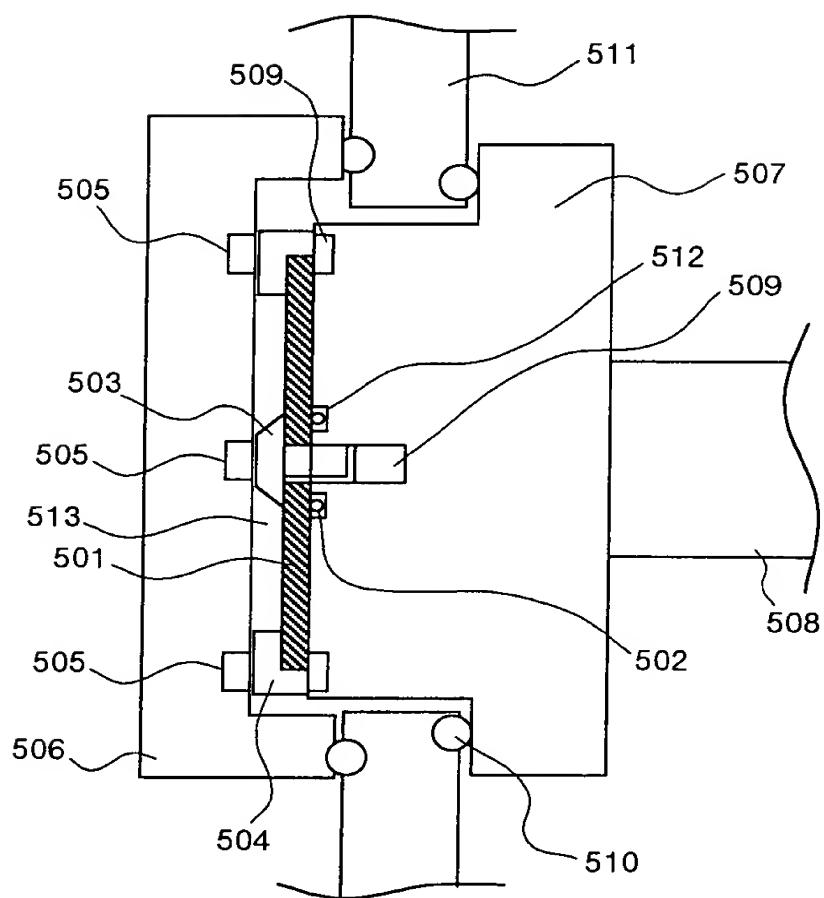


FIG.29

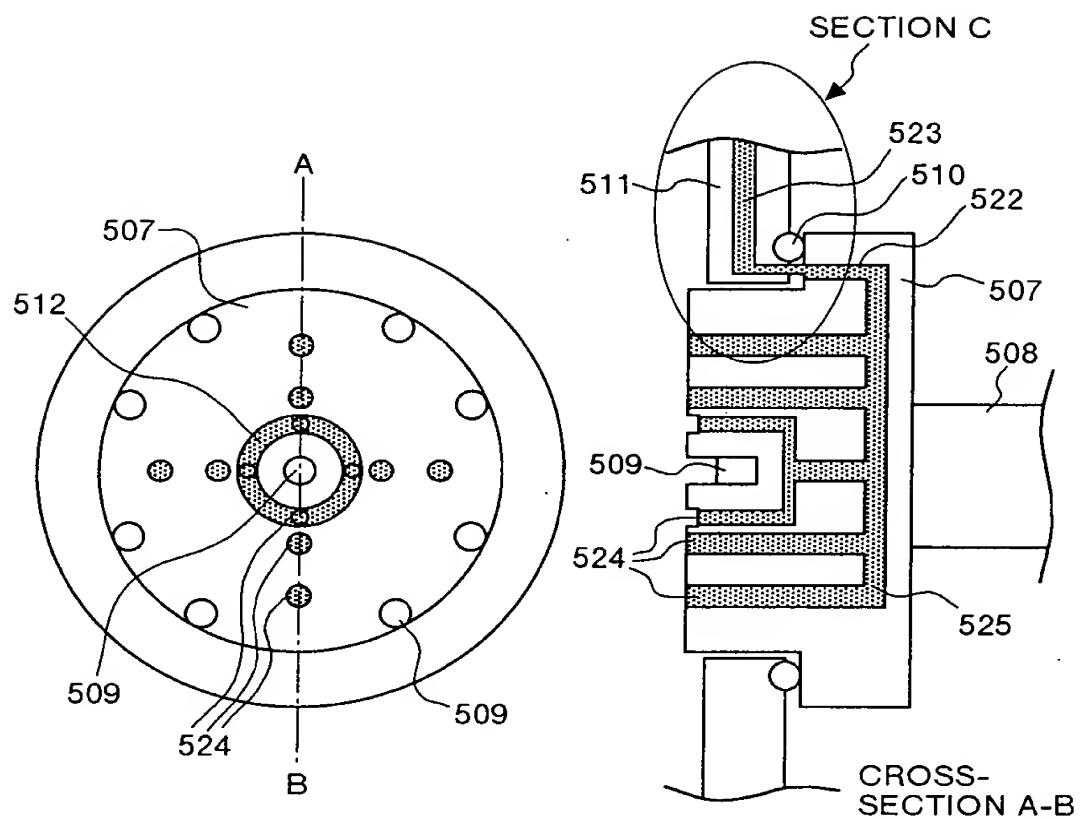


FIG.30

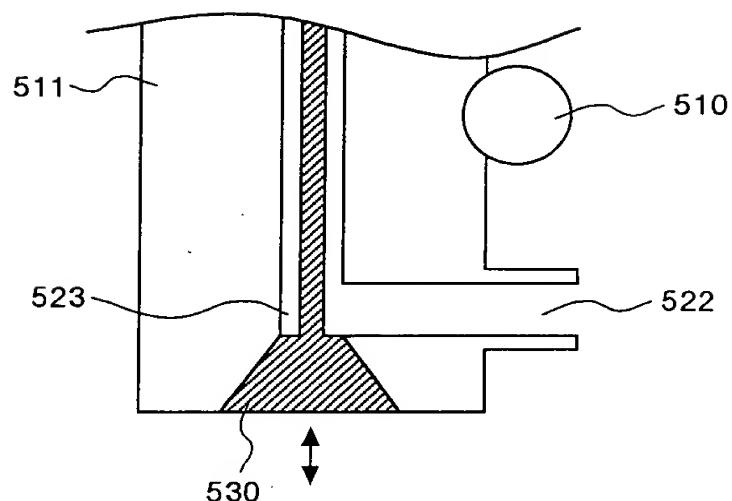


FIG.31

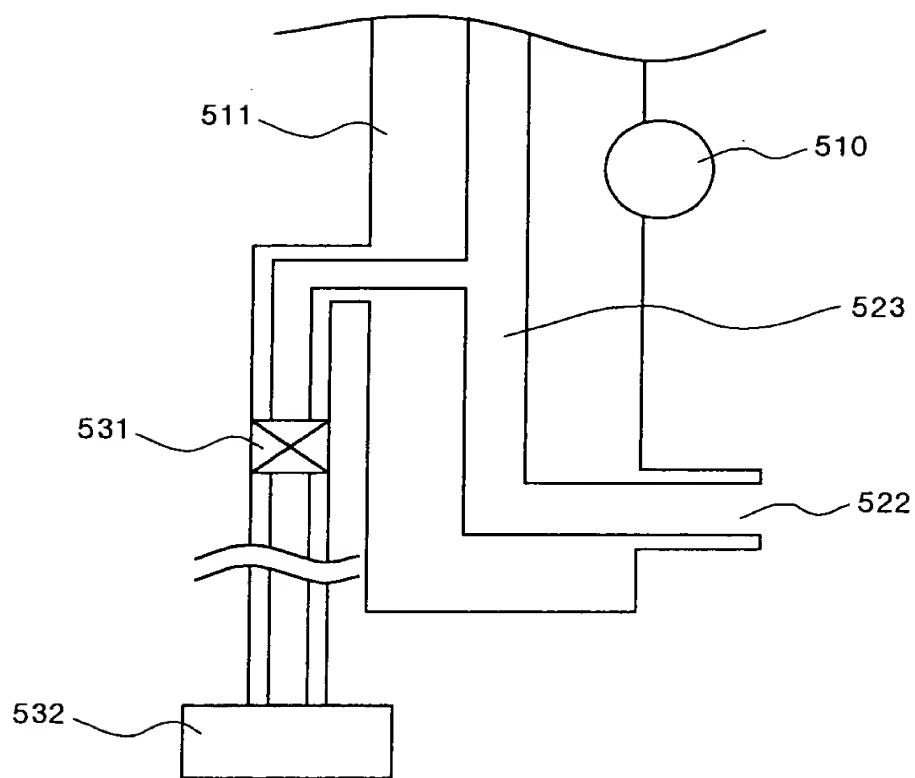


FIG.32

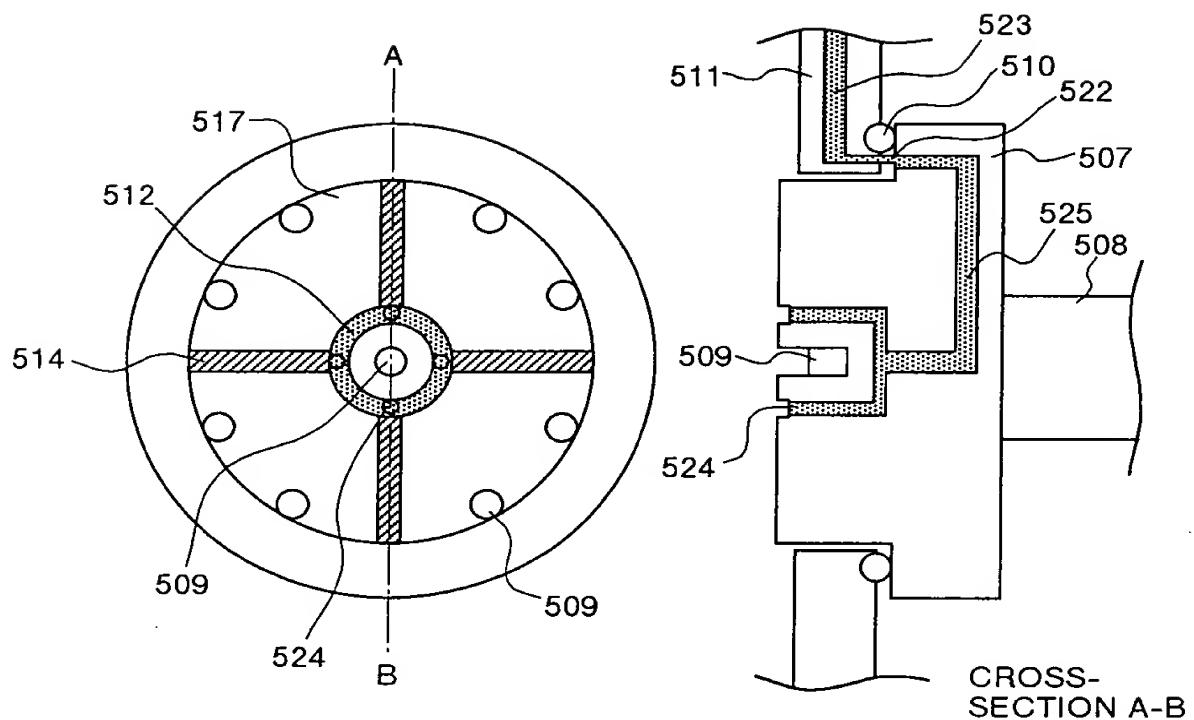


FIG.33

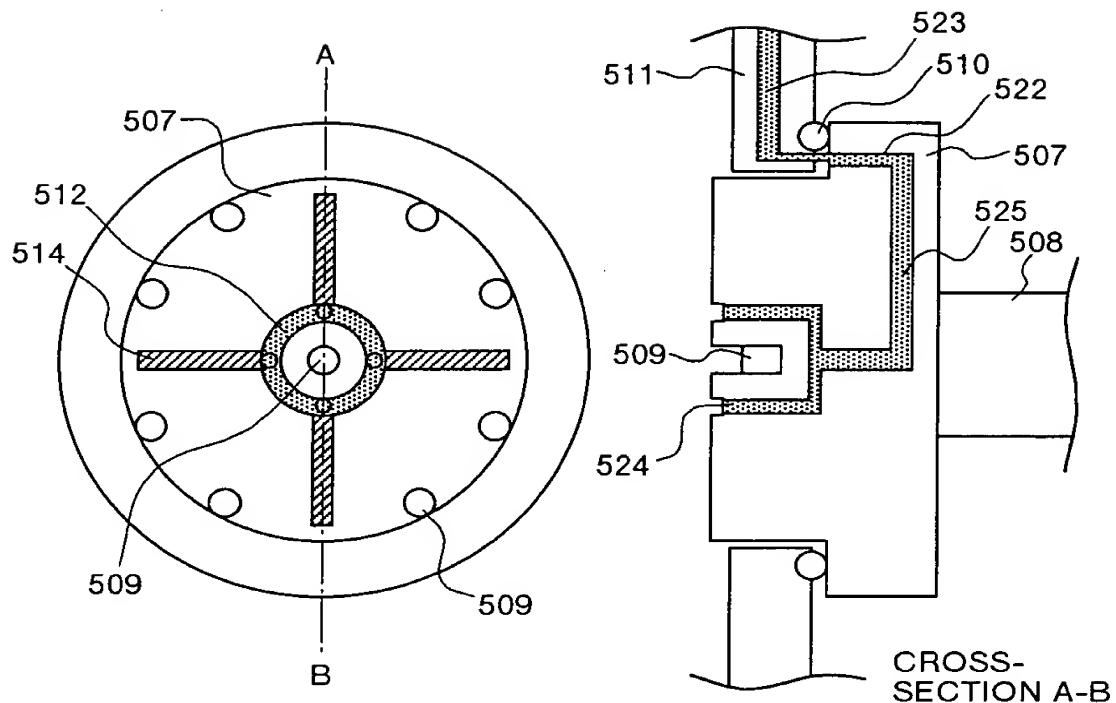


FIG.34

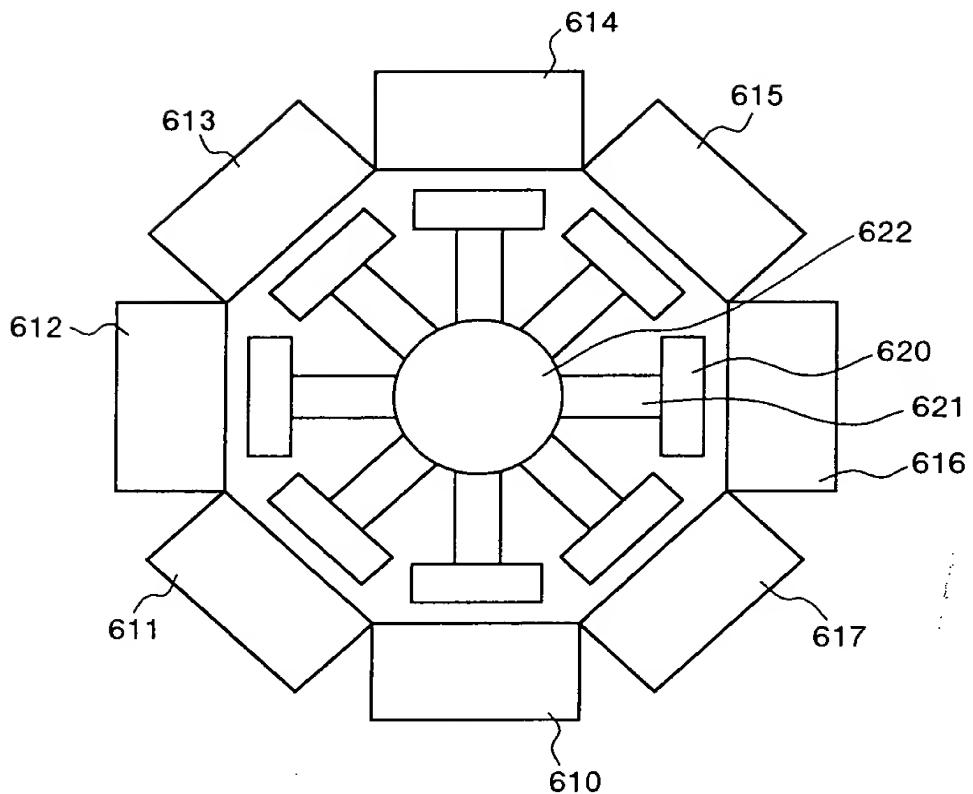


FIG.35

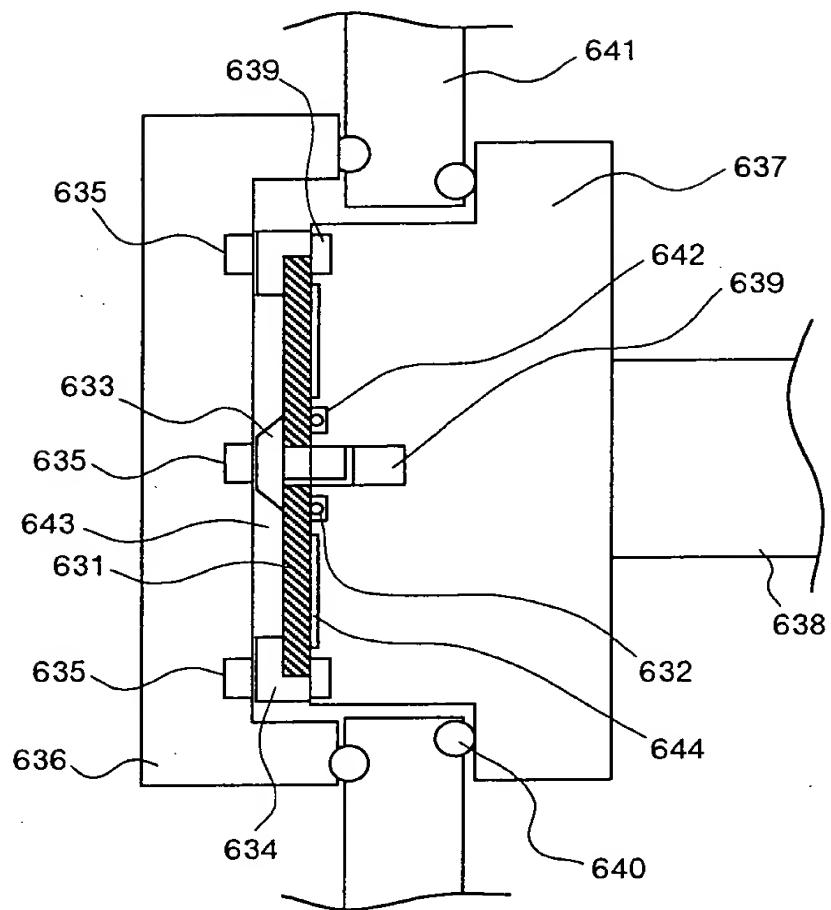


FIG.36

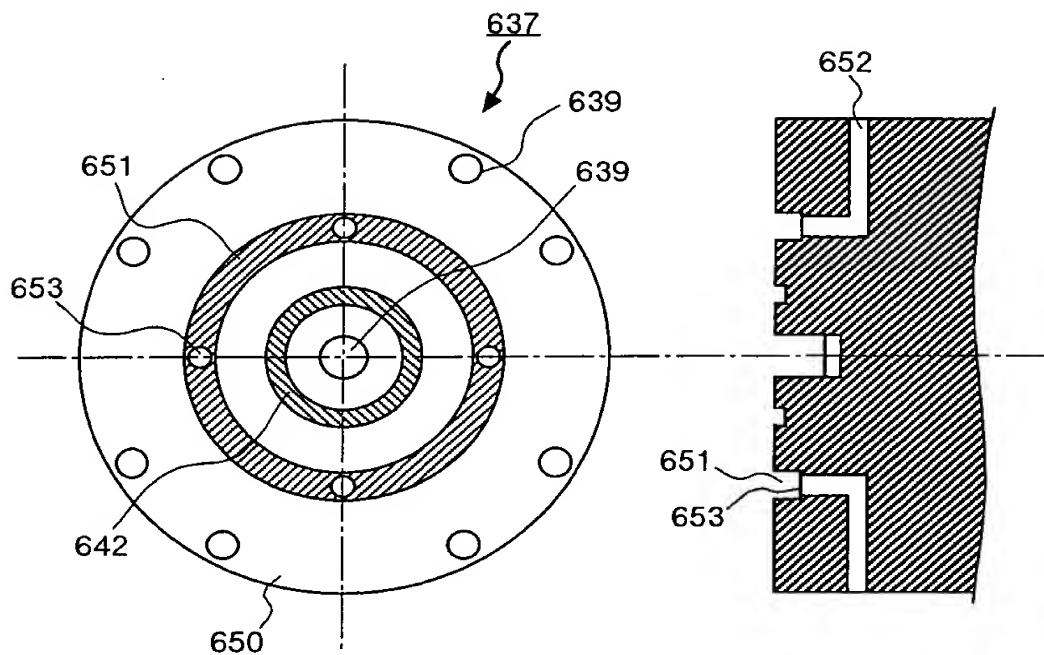


FIG.37

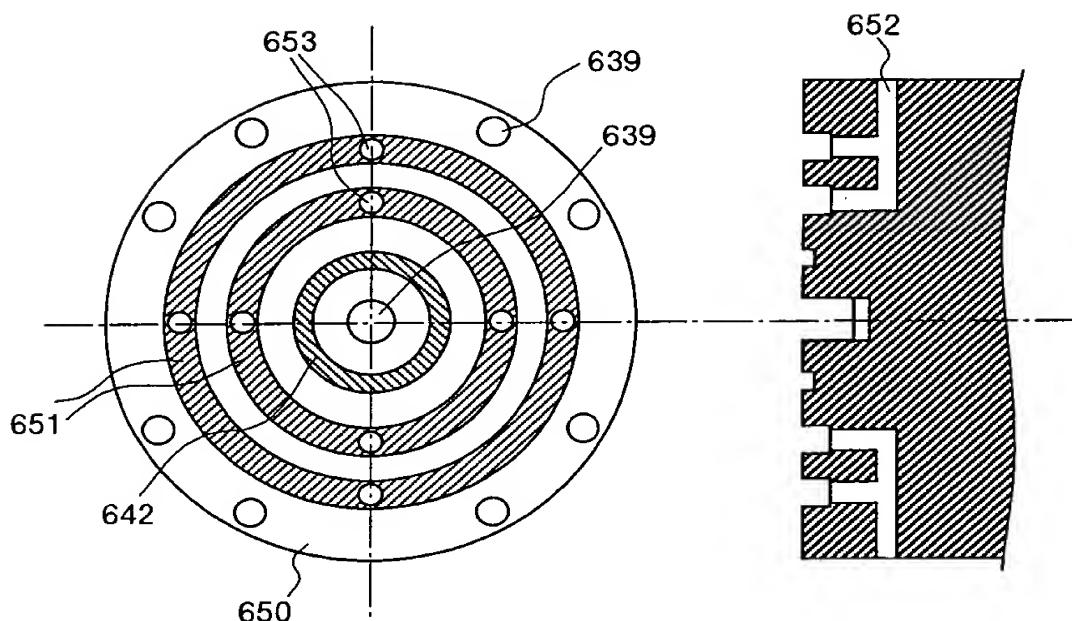


FIG.38

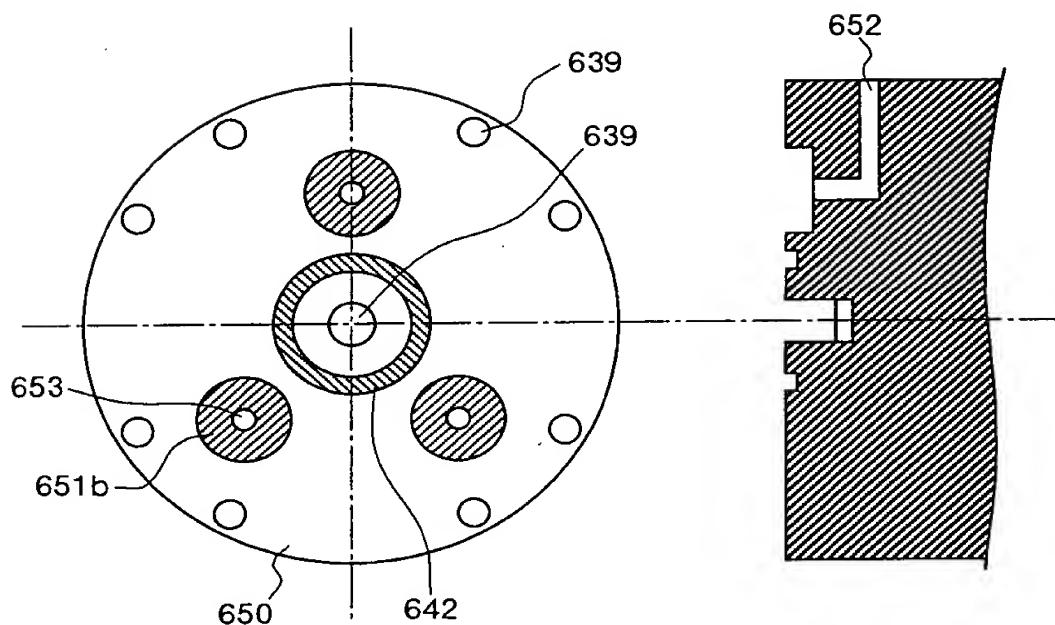


FIG.39

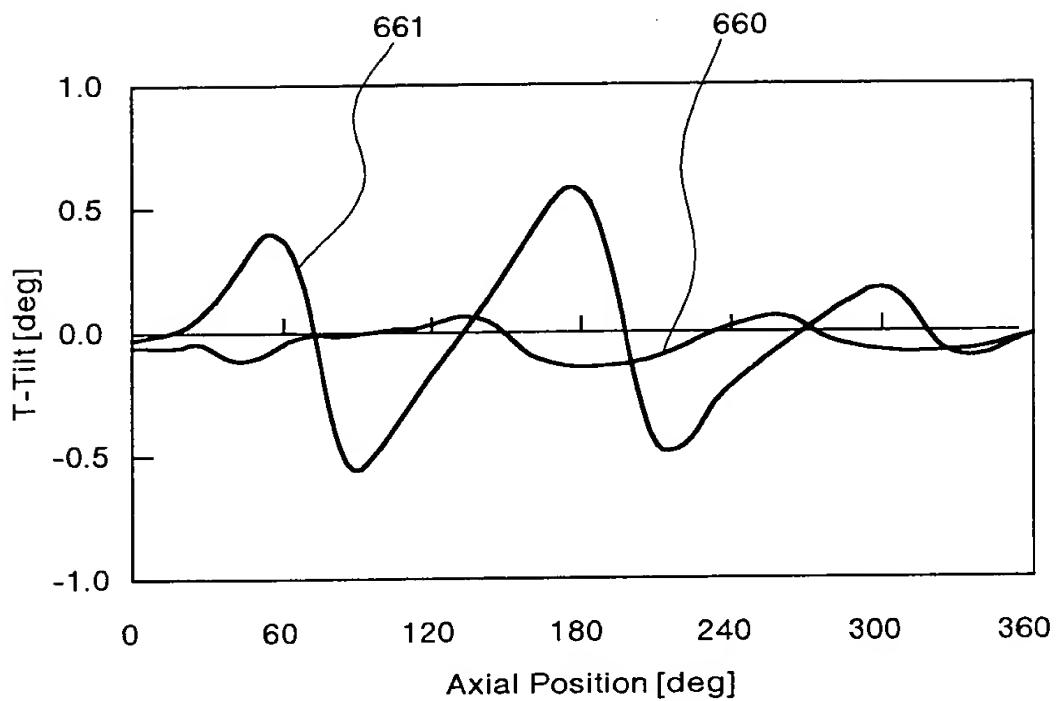


FIG.40

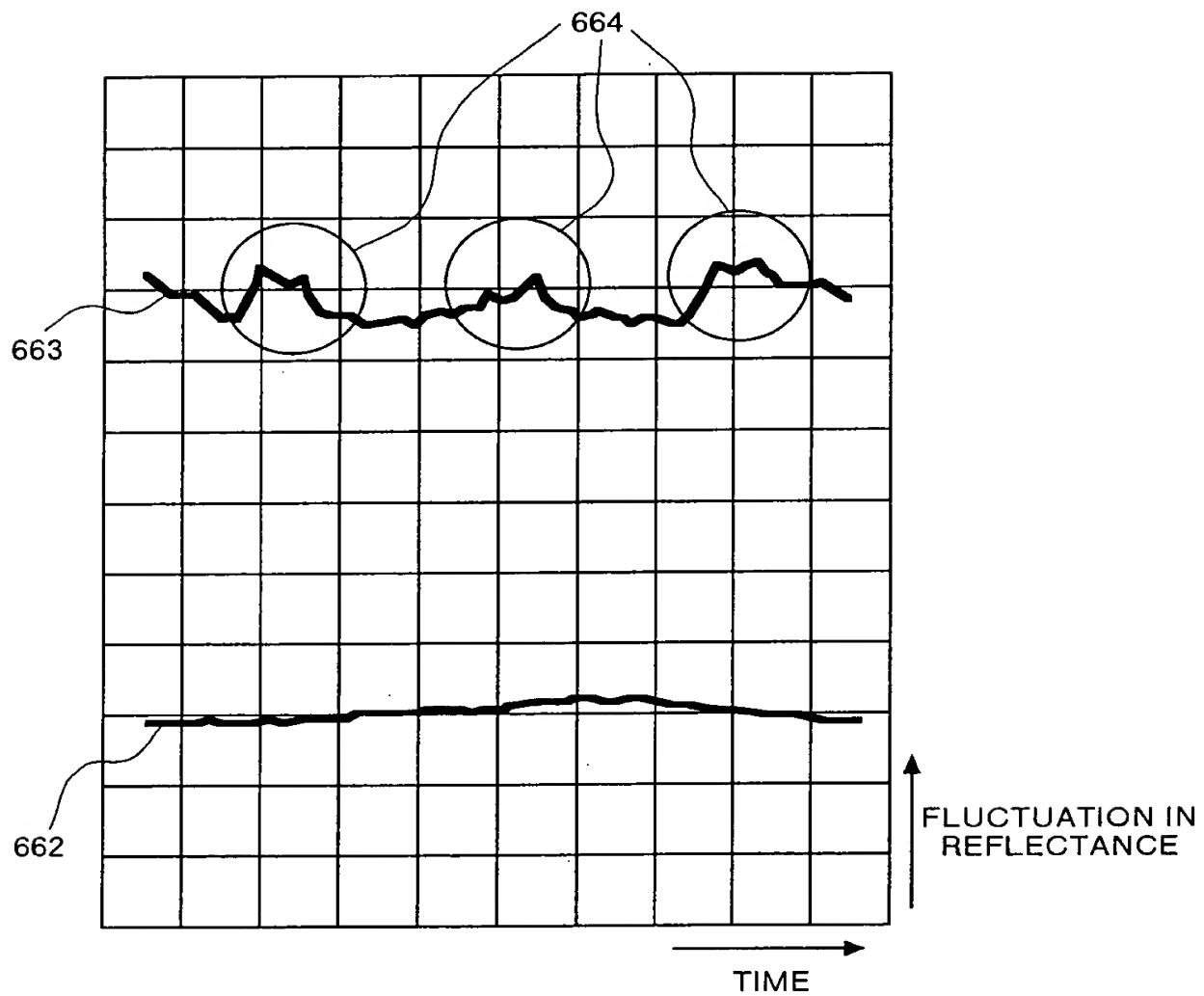


FIG.41

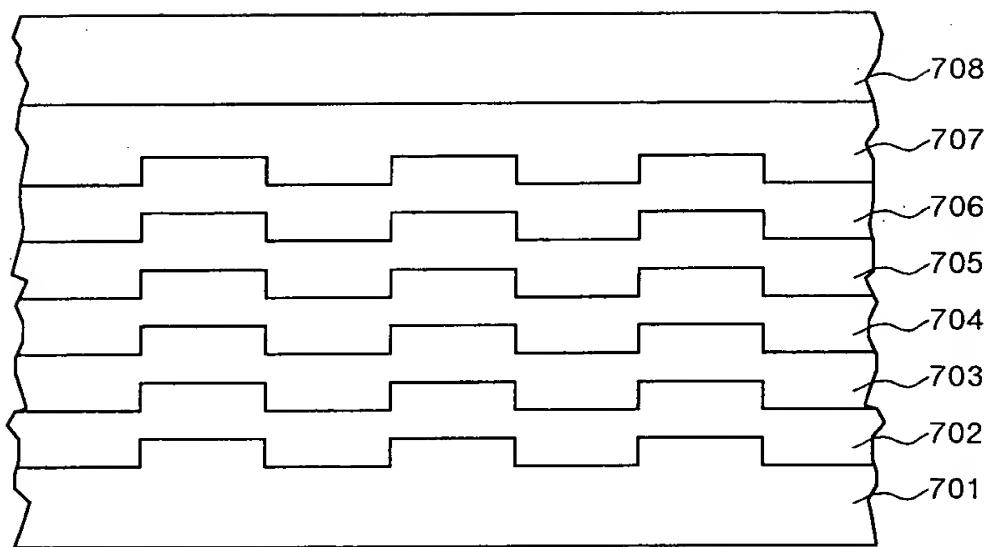


FIG.42

